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(54) Title: CLEANING COMPOSITIONS CONTAINING A MULTI-FUNCTION COMPONENT AND METHOD FOR USING

(57) Abstract: The present invention relates to cleaning compositions comprising a multi-function component that is capable of hydrolyzing 1,3-β-glucans, 1,4-β-glucans and combinations of both physically and chemically linked 1,3-β-glucans and 1,4-β-glucans, and one or more cleaning adjunct materials selected from the group consisting of low foaming nonionic surfactants, hydrotropes and mixtures thereof, and methods for using the cleaning compositions for cleaning, especially tough food cleaning, or otherwise removing and/or reducing soils, especially carbohydrate soils, and/or removing or reducing spotting and films, from dishware, cookware and other hard surface substrates.

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INTERNATIONAL SEARCH REPORT

In stional Application No PCT/US 00/00437

A. CLASSI IPC 7	FICATION OF SUBJECT MATTER C11D3/386 C11D17/00										
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B. FIELDS SEARCHED											
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C. DOCUMI	ENTS CONSIDERED TO BE RELEVANT										
Category ·	Citation of document, with indication, where appropriate, of the	relevant passages	Relevant to claim No.								
x	WO 95 02675 A (PROCTER & GAMBLE 26 January 1995 (1995-01-26) cited in the application)	1-9,18								
Υ	claims 1,8-13,16,17,20-24,29-3		1,3								
A	page 23, line 22 -page 24, line page 38, line 29 - line 33	30	10,11								
Y	WO 95 26397 A (NOVONORDISK AS) 5 October 1995 (1995-10-05) cited in the application claims 1-18 examples 4-6 page 12, line 17 -page 30, line		1,3								
	:	-/									
X Furt	ther documents are listed in the continuation of box C.	χ Patent family me	embers are listed in annex.								
Special ca	ategories of cited documents:	"T" later document publis	hed after the international fiting date								
consid	ent defining the general state of the art which is not cered to be of particular relevance document but published on or after the international	or priority date and r cited to understand t invention	or priority date and not in conflict with the application but cited to understand the principle or theory underlying the								
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	European Patent Office. P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk Tei: (-31-70) 340-2040. Tx. 31 651 epo nl. Fax: (+31-70) 340-3016	Neys, P									

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INTERNATIONAL SEARCH REPORT

Int tional Application No PCT/US 00/00437

Category Citation of document, with indication, where appropriate, of the relevant passages Y WO 96 23873 A (NOVONORDISK AS) 8 August 1996 (1996-08-08) cited in the application claims 1-11,19-28 page 36, line 21 -page 58, line 4 P.A WO 99 27063 A (PROCTER & GAMBLE) 3 June 1999 (1999-06-03) page 54, line 9 -page 55, line 27 claims	Relevant to claim No. 1,3
Y WO 96 23873 A (NOVONORDISK AS) 8 August 1996 (1996-08-08) cited in the application claims 1-11,19-28 page 36, line 21 -page 58, line 4 P.A WO 99 27063 A (PROCTER & GAMBLE) 3 June 1999 (1999-06-03) page 54, line 9 -page 55, line 27	1,3
8 August 1996 (1996-08-08) cited in the application claims 1-11,19-28 page 36, line 21 -page 58, line 4 P.A WO 99 27063 A (PROCTER & GAMBLE) 3 June 1999 (1999-06-03) page 54, line 9 -page 55, line 27	
3 June 1999 (1999-06-03) page 54, line 9 -page 55, line 27	1,10-22

INTERNATIONAL SEARCH REPORT

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information on patent family members

In ational Application No PCT/US 00/00437

Patent document cited in search report	t	Publication date		Patent family member(s)	Publication date
WO 9502675	А	26-01-1995	AU BR CN CZ EG EP FI JP	7069294 A 9407066 A 1129011 A 9600110 A 20618 A 0708819 A 960132 A 9500667 T	13-02-1995 12-03-1996 14-08-1996 12-06-1996 30-09-1999 01-05-1996 11-03-1996 21-01-1997
W0 9526397	A	05-10-1995	AU BR CA CN EP FI JP US US ZA	2067795 A 9507229 A 2186592 A 1144538 A 0753057 A 963861 A 9510617 T 5824531 A 5856164 A 9502565 A	17-10-1995 16-09-1997 05-10-1995 05-03-1997 15-01-1997 27-09-1996 28-10-1997 20-10-1998 05-01-1999 21-12-1995
WO 9623873	А	08-08-1996	AU BR CA CN EP JP	4483396 A 9607735 A 2211405 A 1172500 A 0815208 A 11503003 T	21-08-1996 14-07-1998 08-08-1996 04-02-1998 07-01-1998 23-03-1999
WO 9927063	Α	03-06-1999	BR DE EP ES	9807007 A 29823751 U 0973862 A 2142783 T	14-03-2000 13-01-2000 26-01-2000 01-05-2000

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